CLAIMS

1. A process for the production of a hydrogen-containing gas stream including the shift reaction wherein a gas stream containing carbon monoxide and steam is passed through a bed of a shift catalyst containing, in the reduced state, at least 15% by weight of copper, characterised in that, immediately upstream of said shift catalyst, the gas stream is passed through a bed of an oxygen scavenger comprising an oxidisable composition containing copper and/or iron or iron oxide that is dissimilar to said shift catalyst.

2. A process according to claim 1 wherein the shift catalyst, in the reduced state, contains 20 to 50% by weight of copper.

3. A process according to claim 1 or claim 2 wherein the oxygen scavenger, in the reduced state, contains at least 50% by weight of copper.

4. A process according to claim 1 or claim 2 wherein the oxygen scavenger comprises the product of reducing copper compounds supported on shaped units formed from alumina or a calcium aluminate cement.

5. A process according to claim 4 wherein the oxygen scavenger, after reduction, contains 3 to 15% by weight of copper.

6. A process according to any one of claims 1 to 5 wherein the volume of oxygen scavenger is 5 to 20% of the volume of the shift catalyst.